

CLAIMS

1. (WITHDRAWN) A stable compound having a molecular formula H_9O_4^+ .

2 (WITHDRAWN) A method for causing substantially complete dissociation of polyprotic acid in water, said method comprising the steps:

(i) subjecting said water to at least one of mechanical agitation and magnetic perturbation;

(ii) mixing said polyprotic acid in said water whereby an aqueous polyprotic acid solution is formed;

(iii) adding a compound of calcium to water to form a solution of Ca^{2+} ions in water;

(iv) subjecting an aqueous solution of Ca^{2+} ions to an electric field arranged to convert said Ca^{2+} ions to Ca^{3+} ions whereby a solution of Ca^{3+} ions is generated;

(v) mixing said solution of Ca^{3+} ions with said aqueous polyprotic solution whereby $\text{Ca}_2(\text{SO}_4)_3$ precipitates in a liquid are formed;

(vi) removing said $\text{Ca}_2(\text{SO}_4)_3$ precipitates from said liquid leaving a remaining liquid.

3 (currently amended) A method for generating H_9O_4^+ , said method comprising the steps in operable order:

(i) subjecting ~~said~~ water to at least one of mechanical agitation and magnetic perturbation;

(ii) mixing sulfuric ~~said polyprotic~~ acid in said water whereby an aqueous sulfuric ~~polyprotic~~ acid solution is formed;

(iii) adding a compound of calcium to water to form a solution of Ca^{2+} ions in water;

(iv) subjecting an aqueous solution of Ca^{2+} ions to an electric field arranged to convert said Ca^{2+} ions to Ca^{3+} ions whereby a solution of Ca^{3+} ions is generated;

(v) mixing said solution of Ca^{3+} ions with said aqueous sulfuric acid ~~polyprotic~~ solution whereby CaSO_4 precipitates in a liquid are formed;

(vi) removing said CaSO_4 precipitates from said liquid leaving a remaining liquid;

(vii) lowering temperature of said remaining liquid to where a slush is formed, wherein said slush comprises ice and remaining liquid;

(viii) passing said slush through a filter whereby said remaining liquid is separated from said ice;

(ix) subjecting said remaining liquid to distillation whereby free water is removed from said remaining liquid leaving a liquid compound having a molecular formula H_9O_4^+ .

4. (original) The method of claim 3 wherein said step of subjecting said water to magnetic perturbation includes subjecting said water to a field from a monopolar magnet.

5. (original) The method of claim 3 wherein said step of subjecting said water to magnetic perturbation includes subjecting said water to a strong magnetic field gradient.

6. (original) The method of claim 3 wherein said step of subjecting said water to mechanical perturbation includes moving said water through a centrifugal pump.

7. (cancelled)

8 (original) The method of claim 3 wherein said step (iii) includes the step of preparing said aqueous solution of Ca^{2+} ions by mixing a calcium compound in water contained in a non-magnetic mixing tank.

9.(original)The method of claim 8 wherein said calcium compound is selected from a group of compounds which consists of calcium metal turnings, calcium hydrate, calcium oxide, calcium hydroxide, calcium phosphate dibasic, calcium sulfate, calcium carbonate.

10 (original) The method of claim 8 wherein said step of mixing said calcium compound in water contained in said non-magnetic mixing tank includes the step of subjecting said calcium compound in water to a monopolar magnetic field.

~~9~~ 11 (currently amended)) The method of claim 8 wherein said step of mixing said calcium compound in water contained in said non-magnetic

mixing tank includes the step of subjecting said calcium compound in water to a magnetic field gradient.

~~10~~ 12 (currently amended) The method of claim 3 wherein said step (iii) includes the step of chilling said solution of Ca^{2+} ions in water where by solubility of said calcium compound is increased.

~~11~~ 13 (currently amended)) The method of claim 3 wherein said step (vi) includes the step of allowing said Ca precipitates to settle after which said precipitates are removed by decanting and filtering said solution from said precipitates.

~~12~~ 14 (currently amended) The method of claim 3 wherein said step (vi) of adding an anionic surfactant whereby precipitation and settling of precipitates is aided.

~~14~~ 15 (currently amended) The method of claim 13 wherein said filter of step (viii) is a twenty mesh screen and step (viii) further includes:

forcing said decanted precipitates with water through a filter press whereby a cake of calcium sulfate is formed, usable as a soil pH modifier.

~~19~~ 16 (currently amended) The method of claim 3 wherein ice collected from step (vi) is added to step (v) of a next cycle in the method for generating H_9O_4^+ .

~~16~~ 17. (currently amended) The method of claim 3 wherein said step (ix) includes the step of performing distillation in a low temperature low pressure environment.

~~17~~ 18 (currently amended) The method of claim 3 which includes after step (ix), an additional step, (x) being any one of:
providing hydrogen for a liquid fuel cell;

satisfying the electrolyte requirements in a battery; a battery electrolyte wherein the greater redox potential of the H_2O_4^{+} presents a greater battery voltage.;

replacing mineral acids in pH adjustments whereby accumulation of anions associated with the mineral acids is avoided;

replacing any one of nitric acid and muriatic acids in pretreating steps in electro- and electroless plating;

applying said H_2O_4 compound in biological processes where non reactive properties with organic tissue are required.